

HIGH - TTC

Duration of Closures

Evaluation Criteria – Duration of all long term closure of lane(s) on mainline, ramps, cross streets, and other roads, as detailed on Form F

Edit	Facts	Edit	Significant Strengths	Minor Strengths	Minor Weaknesses	Significant Weaknesses
	<div>KGA: Based on Form F Part 2 (Full Closures), TTC has committed to a maximum cummulative total of 2,357 days of full closures (53% of Allowable Closures) throughout the project including the following:<ul style="list-style-type: none">● Interchange Cross-Streets Full Closures: Total - 60 (20% of Allowed);<ul style="list-style-type: none">○ High - 0,○ Medium - 60,○ Low - 0● Ramps Full Closures: Total - 1,577 (52% of Allowed);<ul style="list-style-type: none">○ High - 90,○ Medium - 380,○ Low - 1,107● Non-interchange Cross-Streets Full Closures: Total - 720 (65% of Allowed);<ul style="list-style-type: none">○ High - 0,○ Medium - 360,○ Low - 360 Based on Form F Part 1 (Partial Closures), TTC has committed to a maximum total of 41,709 days of partial closures throughout the project including the following:<ul style="list-style-type: none">● Mainline Partial Closures: Total of 32,309● Interchange Cross-Streets Partial Closures: Total of 450;<ul style="list-style-type: none">○ High - 90,○ Medium - 360,○ Low - 0● Ramps Partial Closures: Total of 8,740;<ul style="list-style-type: none">○ High - 1,614,○ Medium - 4,992,○ Low - 2,134● Non-interchange Cross-Streets Partial Closures: Total of 120;<ul style="list-style-type: none">○ High - 0,○ Medium - 120,○ Low - 0● Intersection Movements Partial Closures: Total of 90</div>		<div>===== Consensus: TTC is using 60 of the 300 (20%) allowable Interchange Cross Street long term full closure days. Provo Center Street, Orem Center, Orem 800 N, and Orem 1600 N all will not experience a long term full closure. This will enhance regional mobility by maintaining the ability of traveling public to move back and forth across I-15. Additionally, partial closures of Interchange Cross Streets are also minimized. TTC is using 1577 of the 3030 (52.0%) allowable Ramp long term full closure days. This includes no long term full closures for the SB off ramp to EB US-6, the NB on ramp from US-6, the NB ramps at Spanish Fork Main, most of the ramps at Provo Center, and reduced or eliminated closures at 1600 North. This is an aggressive approach to maintaining ramp access that will enhance regional mobility. TTC is using 720 of the 1100 (64.9%) allowable Non-Interchange Cross Street long term full closure days. No NICSs that go under I-15 will experience a long term full closure, including Spanish Fork Main, all NICS in Provo and Orem, Geneva Road, and all NICS in American Fork (TTC will only have long term full closures at NICS that go over I-15). Minimizing impact to these NICSs helps maintain connectivity across I-15 and reduces the demand for the crossing movement at the higher volume Interchange Cross Streets. TTC minimizes long term partial closure of mainline I-15 in each direction between University Parkway and University Avenue, which maximizes the capacity of I-15 in that area. =====</div>	<div>===== Consensus: TTC minimized long term partial closures at Interchange Cross Streets. The proposed partial closures are equally distributed over 5 interchanges. University Parkway will experience no partial closures. TTC minimized long term partial closures at the University Parkway/Sandhill Road intersection, which was limited to 90 days. =====</div>	<div>===== Consensus: All long term partial closures of ramps proposed by TTC occur at 6 interchanges, with a minimum duration of 1 year, and as high as 3 years, which results in a high number of total days of partial closure. This creates a potential traffic impact at these locations. TTC proposes to long term partially close the NB off ramp to University Avenue for 17 months. =====</div>	<div>===== Consensus: TTC is proposing long term partial closures on the NB and SB on ramps at University Parkway for 36 months. Traffic volume at University Parkway is the highest in Utah County. The NB off ramp to American Fork Main will be long term partially closed for 30 months. This ramp partial closure seems excessive, and follows a considerable duration of construction at the ramp in the Pioneer Crossing project. =====</div>

Regional Mobility

Evaluation Criteria – Quality of both AM and PM peak hour regional mobility based on long term closures or openings of mainline lanes, in each major MOT phase, over the life of the Project. Regional mobility is defined as the impact of construction activities on the following measures of effectiveness from the Paramics models:

- o Number of vehicles blocked from entering the model.
- o Travel times between select origins and destinations.
- o Confirmation that the Paramics models are representative of the scheduled major long term closures and openings of mainline lanes.

Edit	Facts	Edit	Significant Strengths	Minor Strengths	Minor Weaknesses	Significant Weaknesses
	<div>===== LAP [From required regional mobility narrative]: 1. Used models to test and evaluate MOT Plan</div>		<div>===== Consensus: TTC maintains 3 lanes in each direction in both phases of construction of Segments 2 and 3 (approx. 17 months, see Fig. 3.2-2). This capacity enhances travel times on I-15 during construction.</div>	<div>===== Consensus: The MOT models show a low number of blocked vehicles combined with a relatively low increase in travel time through the corridor. This indicates that the proposal has addressed impacts to regional mobility to a high degree of confidence.</div>	<div>===== Consensus: In Segment 4, phase 1, there is minor congestion for southbound PM I-15. This is a result of the lack of parallel facilities in this area where the proposer is maintaining 2 lanes of traffic.</div>	

- 2. Coded models based upon number of mainline lane provided in construction.
- 3. With only two primary phases of construction for the mainline, able to coordinate phase changes between segments in the schedule to occur concurrently where possible. This minimized the number of Paramics runs provided.
- 4. Took a conservative approach to coding the ramps into the Paramics scenarios.
- 5. **Out of five models provided: 1 existing, 1 final configuration, 3 MOT scenarios. MOT scenarios: 1 Beginning Sep 2010, 1 5 months later, 1 between Sep 2010 to Sep 2012 when most of the work is occurring.**
- 6. Implementing several regional mobility strategies to alleviate congestion, as delineated in TMP. Coded three into Paramics.
- 7. US89 (State Street from 1600N to Pioneer Crossing): Restripe State Street to Provide an additional travel lane lane in each direction.
- 8. University Parkway (State Street to 800 East): Restripe University Parkway to provide an additional travel lane in each direction.
- 9. University Parkway (Freedom Boulevard to Carterville Road): Restripe University Parkway to provide an additional travel lane in each direction.
- 10. **Included above street improvements in final configuration for comparison purposes, even though they will be removed upon project completion.**

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REB [MOT Paramics Model Review] edited by JKS

- 1. The narrative describes inclusion of a "dynamic merge" in the southbound direction at the lane drop near 2000 South, Orem to relieve congestion during MOT 2. However, there was no detailed descriptions of what the "dynamic merge" is nor was it included in the Paramics model, so its impact cannot be evaluated.
- 2. Blocked vehicles reported by TTC match what the modeling team calculated.
- 3. PM Peak Journey time in MOT1 on I 15 SB from SLC to Pleasant Grove has a 7 minute travel time increase compared to the base model. This journey also has 45 lower trips reaching the destination compared to the base model.
- 4. **MOT1 has an incorrectly coded additional SB general purpose lane in Segment 5 (Orem Center to University Pkwy)**
- 5. MOT2 PM journey travel times:
 - o Spanish Fork SR-6 to Bangerter Hwy - 10 minute increase,
 - o Spanish Fork SR-6 to Orem City Center - 13 minute increase,
 - o Springville to UVU - 13 minute increase,
 - o Geneva Rd/University Pkwy to Salt Lake City - 8 minutes, and
 - o Orem Center St/800N to Spanish Fork - 8 minutes
- 6. Significant vehicles are blocked in MOT 1 (12k) and MOT2 (16k) for one run respectively.
- 7. The State Street and University Pkwy expansions (restriping) are included in the Full Build Paramics model. Documentation states that they may not be permanent.
- 8. Some congestion occurs in downtown Provo, Univ Ave, Univ Pkwy area. Queuing and some blockage, but not gridlock conditions.
- 9. **Journey travel time summary (not total regional travel but selected O-D movements, ~3% of total movements) indicates additional 70,000 minutes of travel time during PM peak hour through project completion in December of 2014 (77,000 minutes through September of 2013, TTC's end of construction). There is a 1.5% reduction in trips, or 81,000 trips, due to congestion through December 2014 (90,000 through September 2013).**

TTC maintains 3 lanes in each direction in phase 2 of construction of segment 4 (approx. 11 months, see Fig. 3.2-2). This capacity enhances travel times on I-15 during constructions.

Journey travel time summary (not total regional travel but selected O-D movements, ~3% of total movements) indicates additional 77,000 minutes of travel time during PM peak hour through project completion (September 2013) with reduction (90,000) in trip making due to congestion. This indicates that the PM peak was accommodated to an exceptional level. Conditions during the PM peak on the mainline while in construction are relatively equal to existing conditions. [Note: this data is based on mainline lane closures only, and does not account for closure of ramps and cross streets.]

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The extra lanes maintained on mainline by TTC enhance the ability to manage incidents.



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There is a risk to proposing the off corridor improvements that TTC proposes to University Parkway and to State Street. These improvements may not be feasible.

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MEDIUM-TTC
Phasing Plan

Evaluation Criteria – Phasing plan logic and complexity

Edit	Facts		Edit	Significant Strengths		Minor Strengths		Minor Weaknesses	Significant Weaknesses	
				=====		=====				
				Consensus:		Consensus:				
				University Parkway, 800 North, Orem Center, and 1600 North will be closed one at a time, with no simultaneous closures. This is a strong commitment to maintaining access to I-15 in Orem.		Construction at the intersection of University Parkway and Sandhill Road will be completed prior to mainline construction between Provo Center and Geneva Road.				

direction

- complete project one year early
- Complete sand hill road and university parkway construction before mainline I-15 construction between university Ave and 1600 N.
- Safety pull outs will be located every 1/2 to 1 mile where shoulders are less than 10 feet
- CFI at sand hill and University Parkway instead of grade separated.

Segment 1 South end to Spanish Fork

- 20 day closure of SB on and off ramp at Spanish Fork Main Street RFP allows 90 days
- 7 day closure of SB on Ramp US-6 RFP allows 90 days
- No long term closure of US-6 NB ramps
- This section will occur in two phases.
- Phasing on Main Line I-15 is Inside- Outside
- Shift traffic to the out lanes in phase 1 and construct inside
- Shift traffic to inside lanes phase 2 and construct outside
- Lots of traffic switching in this section around Spanish Fork Main street

Interchange

- Although there are only to phase there are sub phases in phase 2. Phase 2A and Phase 2B
- No main line closures in this section. Maintain the existing 2 lane of I-15 in each direction open at all times
- In order to maintain the US-6 ramps TTC has chosen to widen the existing bridge over I-15 instead of reconstructing it
- This segment will be completed in Sept 2013.

Segment 2 Springville area US-6 to University Ave

- No mainline GP lanes closed. TCC will Maintain 3 GP in each direction. Minimum is 2 this exceeds the minimum requirements
- Auxiliary Lanes are closed in this section
- Shoulders are less than 10 feet on Main Line in phase 1 and pull outs are not shown on the MOT plans however there is a note on MT-201 that they are TBD

Phase 2 has 14 foot shoulders

- Phasing occurs in 2 phases
- phasing is Inside-Outside
- Phase 1 shift traffic to the outside and construct inside
- Phase 2 shift traffic to the inside and construct outside
- No full long term ramp closures in this section
- 2700 North cross street over I-15 closed for 180 days RFP allows 180 days
- No full long term ramp closures at SR-77 Springville
- This section will be completed in 17 months

Segment 3 Southern Provo from University Ave to Provo Center Street

- No Mainline lane closures. TTC will maintain 3 GP lanes in each direction during construction. RFP minimum is 2 GP lanes. This exceeds the minimum requirements
- Completion of segment 2 and 3 will be completed at the same time
- Pull outs are still TBD in phase 1 Phase 2 has 10 foot shoulders.
- Construction time is approximately 11 months
- No long term full ramp closures in this segment
- This section occurs in 2 phases
- Although there are 2 phase there are sub phase in both phases. Phase 1A, Phase 1B Phase 1C. Phase 2A, Phase 2B.
- Phase 1A shift NB traffic inside and construct right side
- Phase 1B Opens off ramp
- Phase 1C shifts NB to new outside pavement
- Phase 2 traffic is on the outside and the inside is being constructed
- Phase 2A is a SB traffic shift to the inside.
- Phase 2B SB traffic shift to the inside and the outside is constructed
- Lots of traffic shifts
- This section is predominantly and overlay and restriping.

Segment 4 Provo Center to University Parkway

- 1 Lane closure of I-15 Mainline in both directions of phase 1 leaves 2GP lanes. This meets the minimum requirements of the RFP
- No Mainline closures of mainline I-15 in phase 2. This exceeds the minimum requirements of the RFP
- Phase 1 shifts traffic to SB lanes
- Phase 2 shifts traffic to new NB lanes
- Complete most of the sand hill road CFI in the summer 2010 to avoid BYU and UVU school peak times.
- Complete CFI before any mainline I-15 construction of segment 4 begins
- WB to NB I-15 on ramp Provo Center Street closed for 90 days in phase 1 until temporary ramp is completed. RFP allows 90 days.
- NB to WB off Ramp Closed for 90 days during phase 1. RFP allows 90 days
- Installing temporary traffic signal SB off ramp during phase 1. MOT sheet 402
- Installing temporary traffic signal NB to EB off Ramp. MOT sheet 401
- Shifting traffic during phase 1 to the SB lanes of I-15. this is the 2GP lane configuration
- Shifting traffic during phase 2 to the new NB lanes of I-15 this is the 3GP lane

TTC phases construction of the Interchange Cross Streets to minimize long term full closures (only American Fork 500 East experiences a long term full closure). This maintains connectivity across I-15 within American Fork, Lindon, Orem, and Provo.

TTC provides early delivery of Segments 2, 3, and 6 in September of 2012, which preceeds phase 2 construction in Segments 4 and 5 (the Provo/Orem area). This will provide an outlet for I-15 traffic to and from the north and south. It also provides some traffic volume relief at interchanges in the Segments 4 and 5 that are near the completed segments.

Projects to add capacity (US-89 and two locations on University Parkway) to the regional network will be completed prior to mainline construction. This is logical in that it will increase the capacity of the regional arterial network during the time that mainline capacity is restricted.

This will help maximize available arterial capacity on University Parkway and other intersecting arterials during mainline construction. The CFI at University Parkway/Sandhill Road will be completed at the beginning of UVU and BYU fall semester (9/2010). This will enhance access to UVU and will lessen traffic impacts at the University Parkway interchange.

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- configuration.
- Sand hill road and University Parkway intersection will have a short term shut down for rewiring of traffic signal
 - Maintain all existing turning movements at sand hill rd and 2 through lanes westbound and 3 lanes eastbound on university parkway using temporary traffic control. This will reduce the capacity on westbound by 1 lane.
 - Short term closure of WB Provo Center Street to construct intersection MOT sheet 441.
 - Use lane shifting to rotomill and pave for the CFI at University Ave
 - No peak hour full closures of ramps at University Parkway

Segment 5 University parkway to Geneva Road

- No Mainline GP lanes closed. Maintain 3 GP lanes throughout construction. This meets the RFP
- HOV and Auxiliary lanes are closed in this segment
- This section will occur in 2 phases
- Phasing is Outside-Inside
- Phase 1 shift traffic to the inside lanes and construct outside
- Phase 2 shift traffic to the new lanes on the outside and construct inside
- Phase 2B lots of traffic shifting around interchanges
- No long term full closures at 400 South, Center Street, 400 North, 800 North, 1600 North in Orem
- Full Closure of 200 South Lindon for 180 days. RFP allows 180 days for cross streets over I-15
- 800 N Ramps closed for 90 days RFP allows 90 days. Phase 1B
- 1600 North orem SB off Ramp closed for 90 days. RFP allows 90 days
- 1600 North Orem NB on and off ramp closed for 90 days. RFP allows 90 days
- No long term full closure Geneva Road

Segment 6 Geneva Rd to Lehi Main Street

- No Mainline GP lanes closed. Maintain 3 GP lanes throughout construction. This meets the RFP
- HOV and Auxiliary lanes are closed in this segment
- This section will occur in 2 phases
- phasing is outside-inside
- Phase 1 shift traffic to inside lanes and construct outside lanes
- Phase 2 shift traffic to new outside lanes and construct inside lanes
- This section will open in 2012. 30 months of construction
- Proctor Lane full closure for 180 days. RFP allows 180 days for cross streets over I-15
- Sam White Lane full closure for 180 days. RFP allows 270 day this exceeds the RFP.
- American Fork 500 E interchange ramps full long term closure for 90 days. RFP allows for 90 days this meets the RFP
- American Fork 500 E interchanges cross street full long term closure for 60 days.
- American Fork 100 E cross street No Closure.
- State Street in Lehi No Closure.

RJC:

TTC is using the approved ATC which shifts the 3 lane requirement north to University Parkway from just north of Orem 2000 S

Approximately 60% of mainline will be completed by 9/2012 (UPRR north through Provo Center, and 200 S Lindon through Lehi Main)

LOW
Detour Plan

Evaluation Criteria – Detour plan concept logic and complexity

Edit	Facts	 Edit	Significant Strengths	Minor Strengths	Minor Weaknesses	Significant Weaknesses	
	<ul style="list-style-type: none">• Interchange detours are on State Route• Non interchange detours are on some local routes			===== Consensus:	===== Consensus:		

- limited ramp and cross street closures allow for shortest detour routes
- shorter durations of ramp closures, shorten the duration of the detour routes
- detour 3 and 4 are long detours
- Construction phasing plan page 10. TTC recognized that Geneva Road may be under construction and may need to modify their detour plan.
- No detour plans for off peak short term closures.
- No detour plans for I-15 full closures for bridge demolition and girder setting

- **500 E AF detour**
 - o Duration 60 days
 - o Detour makes sense
 - o Interstate traffic is detoured on state route
 - o Local traffic is detoured on local roads
- **Proctor Lane Detour**
 - o Duration 180 days
 - o Detour makes sense
 - o Detour is on state and local roads
- **200 S Lindon**
 - o Duration 180 days
 - o Detour Makes sense
 - o Detour is on state and local roads
- **1600 N Detour**
 - o 1600 N 3 of 4 ramps are closed for 90 days
 - o 1600 N is not closed.
 - o Detour makes sense
 - o Detour is on State Route
- **800 N Detour**
 - o 800 N ramps are closed for 90 days
 - o 800 N is not closed
 - o Detour makes sense
 - o Detour is on State Route
- **Center Street Orem**
 - o Center Street ramps closed for 90 days
 - o Center Street not closed
 - o Detour is on State Route
 - o Detour makes sense
- **Center Street Provo Detour**
 - o NB Loop ramp closed for 90 days
 - o NB off loop ramp closed for 90 days
 - o Center street not closed
 - o Detour is on state route
 - o Long Detours
 - o Detour makes sense
- **2700 North Detour**
 - o Duration 180 days
 - o Detour is on state and local road
 - o Detour makes sense
- **Spanish Fork Detour**
 - o SB ramps closed for 20 days
 - o Detour is on state and local roads
 - o Detour makes sense
- **No Detour routes for the following roads or ramps that are closed**
 - o US-6 SB off ramp
 - o Sam White lane

All of the detour routes follow a local path and in most cases are the shortest routes.



The off-corridor improvements to the arterial system that TTC will make (see Draft TMP, 41 strategies) will enhance the capacity of all detour routes. This will increase the efficiency of the detours.

Using local roads for detour routes creates a 3rd party risk by requiring additional permitting outside of the project control. This will also limit the ability to directly coordinate and change signal systems.

TMP

Evaluation Criteria – Completeness of Draft TMP in providing commitments and direction regarding:

- o Process to produce MOT Plans, including the following phases of a MOT plan: development (meeting contract requirements), implementation, monitoring, refinement, and maintenance
- o Strategies to maximize, monitor, and maintain regional mobility.
- o Strategies to maintain access to residences and local businesses.
- o Strategies to incorporate temporary and/or permanent ATMS facilities into traffic management during construction, including interface with TOC personnel and software.

Edit	Facts	 Edit	Significant Strengths	Minor Strengths	Minor Weaknesses	Significant Weaknesses	
			===== Consensus:	===== Consensus:			
	RJC:						
	Development						
	(see 3.2.1.5 a) 1. MOT Task Force expands upon award 2. Weekly meetings		The process to produce and refine MOT plans incorporates UDOT and stakeholders throughout. The regional mobility strategies proposed by TTC are well thought out and strong (restriping to add capacity, signal timing, eliminating movements from Intersections, added turn lanes, etc.) Some of the strategies require approval of third parties and may not be feasible. Regardless, the remaining strategies represent good value to the	MOT plans will go through a 2 step review process: 50% level presented to the MOT task force in a roll plot format showing basic concepts (working session to provide refinement), and 95% level review with an essentially complete set of plans for UDOT and TTC teams in a comment resolution meeting. Final plans will be presented to the task force. Creating an access inventory for each business and residence impacted by construction allows access to be maintained and supports PI effort.			

- 3. Input from cities, emergency services
- 4. 3-step process: 50% level to MOT TF, 95% level to UDOT, final to MOT TF
- 5. MOT plans to address special events

Implementation

- 1. TCS resp for implementation
- 2. Safety review prior to opening to traffic

Monitoring

- 1. Weekly project drive-thru with TCS and UDOT rep
- 2. Daily reviews of all traffic control elements

Refinement and Maintenance

- 1. Issues from daily reviews and weekly drive throughs taken to MOT TF

Strategies to:

Maximize, monitor and maintain regional mobility

- (see 3.2.1.5 b)
- 1. 41 strategies identified (see Fig 3.2-11 and Table 3.2-6):
 - a. Improve System Efficiency
 - i. Ramp metering during construction to maintain mainline flow
 - ii. Int geometry to Inc capacity of alt routes (restripes and rerouting lefts)
 - iii. Traffic signal timing Imps on alt routes (this is UDOT's resp)
 - b. Enhance System Capacity
 - i. Inc capacity of alt routes (restripes, progression)
 - c. Distribute trips through the system
 - i. Designated alt routes throughout construction
 - ii. Improve transit, vanpooling, and carpooling
 - iii. Divert trips to improve capacity
 - d. Contingency funds for reacting to problems - \$200,000
 - 2. Incident Management
 - a. Establish an Emergency Response Liaison (the TCS)
 - b. Period drive thru with emergency services

Maintain access to residences and businesses

- (see 3.2.1.5 c)
- 1. Tailor MOT plans to account for residential access
 - 2. Business access inventory with specific plan for each stakeholder
 - 3. Business access wayfinding when necessary

Incorporate ATMS into traffic management during construction

- (see 3.2.1.5 d)
- 1. Maintain the ability of the TOC to manage traffic.
 - 2. Early deployment of new ATMS devices
 - 3. Maintain existing ATMS equipment (incl TMS, CCTV, ramp metering)
 - 4. Add nonIntrusive detection b/w Univ Pkwy and Sp Fk Main for travel times
 - 5. Cellular probe travel times for key routes (I-15, State St, University Ave)

DLM

- MOT task force will focus on construction issues and generate accurate travel and schedule information for dissemination to the public and key stake holders
- TCC will implement a weekly project drive through to review the effectiveness of the TC plans and MOT. They will develop a plan of action to resolve issues such as: Placement of TC, Maintenacne of signs and pavement markings, changes to devices to improve mortorist understanding and safety, traffic signal timing and coordination issues, effectivness of detours, effectiveness of guide signs and traffic related impacts on neighborhoods and businesses.
- Task force Goals: Provide input and feedback during the preparation of TC plans, Develop and refine the 30 day look ahead and long range MOT plan for use by UDOT PIO, Ensure task force members and stakeholders

Department, and are a good approach to maximize the capacity of the arterial system.

TTC has already established its MOT task force (with more than a dozen experienced professionals) and has been meeting weekly over the past several months. The TF will expand upon award to include UDOT and other stakeholders.

TTC will deploy and integrate non-intrusive traffic monitoring stations between University Pkwy and Spanish Fork Main Street early in the project.
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TCC will implement a weekly project drive-through to review the effectiveness of the Traffic Control plans and MOT. They will develop a plan of action to resolve issues such as: placement of traffic control, maintenance of signs and pavement markings, changes to devices to improve mortorist understanding and safety, traffic signal timing and coordination issues, effectiveness of detours, effectiveness of guide signs and traffic related impacts on neighborhoods and businesses.

Will use aggressive ramp metering strategies to prevent system (I-15) collapse.

Will improve ramp meter storage (by adding pavement) at two locations (800 N and Orem Center NB on-ramps) to accommodate 4 minute dwell times.

Will designate an Emergency Response Liaison as the direct point of contact for emergency service agencies. This person will be responsible to drive through the project with emergency response representatives after each major traffic shift to ensure they are safe and suitable for emergency vehicles.

Will allocate an additional \$200,000 as a contingency fund to implement changes that address unexpected issues.

Will implement cellular probe technology travel times for key routes (I-15, State St, University Ave). This may not be feasible, however, due to privacy issues. The Department has investigated this technology in the past.

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MOT concerns are addressed, Coordinate the efforts of MOT and public information.

- MOT plans will go through a 2 step process: 50% level in a roll plot format showing basic concepts, and 95% level with an essentially complete set of plans.
- TTC will review their schedule, TC plans and signage in the MOT task force in advance of each special event to avoid conflict and ensure the PIO can convey the proper messages.
- MOT plans will be implemented in the field by their TCS.
- TSC will perform accurately document daily reviews of all TC elements to verify they are being maintained properly.
- developed a list of 90 strategies to maintain and improve regional mobility during construction. see figure 3.2-11 and table 3.2-6.
- Figure 3.2-11 key Concepts and Benefits: All Ramp Meters will have a dwell time of up to 4 minutes, when necessary to prevent system collapse. Early deployment of planned ramps and meters, create additional ramp storage to make it possible to meter up to 4 minutes. Innovative intersections will be utilized to improve the efficiency of key arterials (ie state street) creating higher intersection capacities and increased green time. Striping along key arterials will be altered to provide additional lanes that enhance capacity for any traffic volume from I-15 spillover and alternate routes will be highlighted using way finding signs, internet displays, and other informational systems to help distribute traffic through the system.